

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A microarray ~~comprising~~ consisting of a solid support onto which an array of at least two nucleic acid molecules are bound, 90% of which are either:

(a) nucleic acid molecules that encode polypeptides of complex I, II, III, IV, or V of the mitochondrial respiratory chain, said polypeptides being naturally coded for by a nuclear gene ~~nuclear-encoded mitochondrial energy metabolism nucleic acid molecules,~~
or

(b) fragments of (a), which ~~thereof, bound to a solid support, wherein at least 90% of the nucleic acid molecules on said support are mitochondrial energy metabolism nucleic acid molecules and wherein at least two of said nuclear-encoded mitochondrial energy metabolism nucleic acid molecules, or fragments thereof, are at least 15 nucleotides in length and are hybridizable array elements.~~

2. (Currently amended) The microarray of claim 1, wherein said array comprises ~~nuclear-encoded mitochondrial energy metabolism~~ a nucleic acid molecules molecule encoding a polypeptide, or fragments thereof, selected from the group consisting of an ATP synthase (mitochondrial F0 complex, subunit c, isoform 3), VDAC1 pseudogene (porin protein, isoform 1), ubiquinone-binding protein, ATP synthase (mitochondrial F0 complex, subunit d), mitochondrial ribosomal protein L3, cytochrome c oxidase subunit

VIIb, ATP synthase (mitochondrial F0 complex, subunit f, isoform 2), dynamin 1-like protein, voltage-dependent anion channel 2 (porin), Cytochrome c oxidase subunit VIIa polypeptide 2 (liver), ATP synthase (mitochondrial F1 complex, O subunit), voltage-dependent anion channel 1 (porin), single-stranded DNA binding protein, fumarate hydratase, solute carrier family 25 (member 4), ATP synthase (mitochondrial F1 complex gamma polypeptide 1), NADH dehydrogenase ((ubiquinone) 1 alpha/beta subcomplex 1, 8kDa), and 3-oxoacid CoA transferase, or a fragment thereof ~~nucleic acid molecules~~.

3-38. (Canceled)

39. (Currently amended) The microarray of claim 1, wherein at least two of said ~~nuclear encoded mitochondrial energy metabolism nucleic acid molecules, or fragments thereof,~~ are at least 40 nucleotides in length.

40. (New) The microarray of claim 1 consisting of at least 10 nucleic acid molecules.

41. (New) The microarray of claim 40 consisting of at least 25 nucleic acid molecules.